

Susan Pollock

## Working Lives in an Age of Mechanical Reproduction: Uruk-Period Mesopotamia

### Summary

The notion of mechanical reproduction was made famous by Walter Benjamin in a 1936 essay. Benjamin was concerned with modern developments; in this paper I argue that a shift toward pervasive repetitiveness in work and thus a form of mechanical reproduction was already introduced in the Uruk period (4th millennium BCE) in southern Mesopotamia. I consider the ways in which work was conceptualized and structured in Uruk times, and by extension how innovations in the realm of work affected other spheres of life. My examination includes the production and use of pottery, buildings and their constituent mudbricks, durable imagery involving anthropomorphic depictions, and textiles.

Keywords: Mechanical reproduction; work; repetitiveness; Uruk period; Mesopotamia; standardization; creativity.

Ein Aufsatz Walter Benjamins aus dem Jahr 1936 verschaffte dem Begriff der mechanischen Reproduktion zur Berühmtheit. Benjamin beschäftigte sich allerdings mit modernen Entwicklungen. Hier argumentiere ich, dass es schon in der Uruk-Zeit im 4. Jt. v.u.Z. in Südmesopotamien eine weit verbreitete Tendenz zu sich wiederholenden Arbeitsvorgängen und damit zu mechanischer Reproduktion festzustellen ist. Ich erörtere, wie Arbeit in der Uruk-Zeit verstanden wurde und strukturiert war, und wie Innovationen im Bereich der Arbeit selbst andere Lebenssphären beeinflusste. Meine Überlegungen schließen Herstellung und Verwendung von Keramik, Bauten und das Baumaterial Lehmziegel, aber auch anthropomorphe Bilder aus dauerhaftem Material und Textilien ein.

Keywords: Mechanische Reproduktion; Arbeit; Wiederholung; Uruk-Zeit; Mesopotamien; Standardisierung; Kreativität.

Stefan Burmeister, Reinhard Bernbeck (eds.) | The Interplay of People and Technologies. Archaeological Case Studies on Innovations | Berlin Studies of the Ancient World 43  
(ISBN 978-3-9816751-8-4; URN urn:nbn:de:kobv:188-fudocs\_series\_00000000691-9) | [www.edition-topoi.org](http://www.edition-topoi.org)

I would like to thank the organizers and editors for putting together an interesting conference. I thank them as well as an anonymous reviewer for critiques and suggestions on an earlier version of this paper.

In his famous essay *Work of Art in the Age of Mechanical Reproduction*, first published in 1936, Walter Benjamin engages in a meditation on art and aura in a time of fundamental transformation. For Benjamin, the possibility of mechanically reproducing imagery at a magnitude and with a rapidity that had never previously been possible was a transformation of major proportions. He traces the technology from classical Greece – the use of stamping and foundry to make coins, bronzes, and terracottas – through the medieval to modern development of woodcuts, printing, lithography, and finally photography and especially film. Benjamin bemoans the loss of the aura of the artwork that he considers to have accompanied these developments. He argues that mechanical reproductions are no longer the careful, individually crafted copies that were once made: “Replicas were made by pupils in practice of their craft, by masters for diffusing their work, and, finally, by third parties in the pursuit of gain”.<sup>1</sup> Rather, modern works are churned out mechanically and repetitively by the use of techniques such as photography. In other words, mechanical refers to a form of (re)production that is unreflected and to at least some extent independent of social context, taking place by means of processes that allow large quantities of more or less identical copies to be made.

For Benjamin aura is a product of the situatedness of an artwork in a particular time and place, which confers on the work a specific history and locates it within a specific tradition. All of this was, according to Benjamin, lost when technological innovations allowed copies to be produced in more or less infinite numbers, to be viewed and interacted with in almost any context.

Despite a certain nostalgic sense of lost authenticity, Benjamin also saw some glimmers of hope in these developments – an unprecedented access on the part of the masses to art forms such as film. As a result of this democratization process, “for the first time in world history, mechanical reproduction emancipates the work of art from its parasitical dependence on ritual”.<sup>2</sup> In an age of mechanical reproduction, art is something that is designed to be reproduced and exhibited, and it is based on politics rather than ritual. His analysis, Benjamin suggests, may be “useful for the formulation of revolutionary demands in the politics of art”.<sup>3</sup>

Like so many philosophical reflections by European and North American scholars, Benjamin adopts a perspective on history in which little or no attention is given to non-

1 Benjamin 1968 [1936], 218.

2 Benjamin 1968 [1936], 224.

3 Benjamin 1968 [1936], 218.

European or pre-modern cultural contexts. Rather, he is concerned with specific historical developments in the early 20th century. I will argue in contrast that some of the most profound and transformative elements accompanying a shift toward mechanical reproduction – specifically the pervasive repetitiveness in work via mass (re)production – was introduced in much earlier historical times and other cultural contexts. The specific case on which I focus is the Uruk period (4th millennium BCE) in southern Mesopotamia.

## 1 Repetitiveness at work

The sociologist of work, Richard Sennett, has examined scholarly evaluations of the role of repetitive work in the context of emerging industrialization in the mid-18th century in western Europe.<sup>4</sup> He contrasts the judgments of two very different scholars regarding this subject. In his *Encyclopédie* the philosopher Denis Diderot discussed routine as a crucial element leading to the mastery of a craft. He argued that routine was essential to the organization of industrial production. It was not to be seen as merely the endless mechanical repetition of an activity; rather, learning to do something to the point that one can do it more or less automatically ultimately makes creative work possible, according to Diderot, by allowing the person who has mastered the process to introduce changes. The person who has internalized the routine of a work process also learns the appropriate rhythms of the work and can, at least to some extent, modify them according to need. In other words, routine, the result of repetitiveness, is associated with the mastery of a work process, which in turn makes it possible to vary elements, thereby fostering – at least in principle – creativity. Ingold makes a similar argument, citing an artist who says that he focuses on the process of making and “let[s] the piece [being created] take care of itself”.<sup>5</sup>

Sennett juxtaposes Diderot’s positive perspective on the development of industrial routine against the distinctly more negative view of Adam Smith in *The Wealth of Nations*. Smith saw routine work, in which each worker carries out boring, repetitive tasks, as something that dulls the mind. The problem, according to Smith, was that workers lose control over their own activity and cease to have reason to exercise judgment and understanding in their work. As a result, work becomes a routine without rhythm, accompanied by a minimum of spontaneity. In contrast to Diderot’s view, Smith saw routine and repetitiveness as leading to dullness and stagnation.

Another element of repetitiveness and mass (re)production derives from their temporal implications. Highly repetitive work processes may be decoupled from ‘normal’

4 Sennett 2006 [1998], 39–56.

5 Ingold 2007, 11.

rhythms, those characteristic of domestic life or of seasonality, becoming instead subject to administrative forms of timekeeping.<sup>6</sup> These in turn are more easily subject to manipulation of tempo, for example the push to speed up work.<sup>7</sup>

## 2 Repetitiveness in Uruk-period Mesopotamia

The 4th millennium BCE in the alluvial lowlands of southern Mesopotamia is widely acknowledged by archaeologists to have been a time of major transformations. Referred to as the Uruk period from the site of Uruk in present-day southern Iraq, the 4th millennium witnessed an array of fundamental changes in material practices as well as in demographic, economic, political, social, and ideological spheres of life. Together these have been subsumed under such rubrics as the origins and consolidation of the first states and the emergence of urban societies.<sup>8</sup> Among the most notable changes were a vast growth and agglomeration of settlement; alterations in river regimes resulting in a gradual drying out of what had previously been a predominantly deltaic landscape; a wide array of technological changes in craft production; elaboration of systems of recording and counting that culminated in the invention of writing; visual representations of violence among people; and a widespread distribution of characteristic styles of material culture over a large geographic area in the latter half of the Uruk period, the so-called Uruk expansion.<sup>9</sup>

In my examination of the introduction of mass production and pervasive repetitiveness in work in Uruk-period Mesopotamia I am not concerned primarily with innovations in terms of specific technical processes, although these do play a role in my discussion. Rather, I am interested in how work was conceptualized and structured, and by extension how innovations in the realm of work affected other spheres of life, for example, the mass mobilization of labor that was undertaken in order to produce and transport goods. In other words, how did the introduction of repetitiveness as a basic feature of work processes affect:

- what was produced, i.e. the products;
- how the products were used, i.e. how people dealt with mass produced things; and

6 Cf. Englund 1988.

7 See, for example, Paul Virilio's discussions of speed and the "revolution" in transportation that he situates in the 19th century (Morisch 2006).

8 Johnson 1973, Johnson 1980; H. T. Wright and Johnson 1975; Adams 1981; Nissen 1988; H. T. Wright 1998; Pollock 1992, Pollock 1999.

9 Algaze 1993, Algaze 2008; Rothman 2001; Pournelle 2007.

- the subjects who were produced through their interactions with these forms of work and with the objects thereby made?

Ultimately, I examine how pervasive repetitiveness produced monotonously similar things. At the same time – although not necessarily for the same persons – repetitiveness allowed and perhaps even encouraged diversity and creativity, what we often consider to be the heart of innovation. What may have begun primarily as a means to rationalize production of certain key products ultimately changed the people who made and used them, in ways that could not have been entirely intended or foreseen by those who initiated the changes.<sup>10</sup>

### 3 Technological change and mechanical reproduction

Archaeologists have frequently remarked upon innovations in the realm of technologies during the Uruk period.<sup>11</sup> I suggest that many of these innovations can be understood as part of an introduction of pervasive repetitiveness that came to characterize many spheres of life by Late Uruk times. Here I examine several realms in which the practice of pervasive repetitiveness can be observed.

#### 3.1 Pottery production and use

The production of pottery underwent substantial changes in the Uruk period, with a proliferation of different vessel forms as well as changes in the technologies of vessel manufacture. Moulding was widely used to form vessels, specifically beveled rim bowls, the single most commonly occurring type of container made in Uruk times (Fig. 1). On the basis of their characteristic properties, the frequency with which they were discarded when still intact, along with analogues in the earliest written texts of the Late Uruk period, beveled rim bowls have been considered to be vessels used for the distribution of food or drink in the form of rations to dependent laborers.<sup>12</sup> The introduction of the fast wheel for throwing vessels, including the development of the technique of “throwing from the hump”<sup>13</sup>, dates to the later Uruk period, and it, too, was confined primarily to the production of mass-produced containers used for the large-scale distribution of food and/or drink. These technologies for forming pottery made it possible to produce large quantities of very similar-looking vessels in processes that seem to have been designed to maximize output and minimize investment of time and were clearly in the interests

10 Cf. Schivelbusch 2000 [1977].

11 Nissen 1977, Nissen 1989; Algaze 2008.

12 Nissen 1970, 136–138; Johnson 1973, 129–139; Pollock 2003, 27–32.

13 Rye 1981, 75.



Fig. 1 Beveled rim bowls, the most common form of ceramic vessel produced and used in the Uruk period.

of those who commandeered labor that was compensated through the allocation of rations.

It is not only the production of vessels by moulding or throwing on a fast wheel that speaks to an emphasis on repetitive practices but also the ways in which these ceramics were used in consumption. The mass distribution of food and/or drink using these vessels was organized with an eye to effectiveness and efficiency, as is graphically illustrated by an *in situ* find at the site of Chogha Mish.<sup>14</sup> There, beveled rim bowls were lined up in rows, apparently ready to be filled and handed out to workers. The standardized sizes and shapes of the bowls point to an environment in which consumption of food was rationalized to an extreme, being divided into a series of easily repeatable segments. As is the case for almost all of the other pottery produced and used in Uruk times, the beveled rim bowls are devoid of decoration. The 'loss' of decoration was a gradual process that took place over centuries,<sup>15</sup> culminating in a nearly complete absence that coincided with the introduction of mass production.

Mass-produced vessels were used for the distribution of food and drink to feed a new class of workers, who were themselves engaged in repetitive forms of labor (see below,

14 Delougaz and Kantor 1996, Pl. 15.

15 Wengrow 2001.

Durable Imagery). Many of them probably had little opportunity to exert control over their conditions of labor or commensality. In this way, standardized products of mass production were in turn used to ‘mass reproduce’ laborers who were themselves engaged in work that was constituted of repetitive tasks.

Accompanying the production of standardized vessels made in moulds or thrown on the wheel is a marked proliferation of different vessel forms. The introduction of substantial numbers of new vessel forms can be understood as a location of innovation and creativity on the part of potters who were learning new methods for preparing clay that was suitable for throwing on a wheel and used the occasion to experiment with the production of novel forms of rims and necks as well as the use of handles and spouts that were seldom attested before. This diversity of vessel shape and attributes must be understood not solely as a matter of functional differentiation, but rather as a product of changing forms of labor that permitted and to some extent perhaps encouraged a certain degree of experimentation.

### 3.2 Mudbricks and building construction

A growing emphasis on repetition in production and use of objects is evident in the realm of construction as well. Mould-made, sun-dried mudbricks had long been employed in Mesopotamia for the construction of buildings, but in later Uruk times a new form of bricks with a square cross-section, known as *Riemchen*, was introduced.<sup>16</sup> Their usage extended well beyond that of a local custom – *Riemchen* were used in sites as distant as southern Iraq and northern Syria. Their uniformity of shape and size made them more flexible to use than earlier forms. The production of mudbricks is physically demanding work, and the growing size of some non-domestic buildings and associated structures, especially mudbrick platforms, would have required massive quantities of bricks. Furthermore, production was probably seasonally restricted, as water and tempering materials – often consisting principally of straw or chaff – would have had to be available and the weather suitable to allow the bricks to dry. The likely result is that bricks were generally made after the harvest in the late spring/early summer, possibly continuing up to early winter.

At the same time as massive quantities of interchangeable ‘building blocks’ were being produced, there was also an unprecedented experimentation with building form and elaboration, best known from the array of monumental, non-domestic buildings from the site of Uruk.<sup>17</sup> The repetitive production of components – in this case, bricks – allowed for creativity, with these building blocks ultimately used to construct edifices of

16 Sauvage 1998, 110–114.

17 Nissen 1988, 96–100; Butterlin 2003; Eichmann 2007.

a previously unmatched size and elaboration. The possibilities for creative use of these flexible components did not necessarily translate into occasions for experimentation on the part of the workers engaged in the actual building process, but was more likely reserved for those entrusted with designing the buildings.

### 3.3 Durable imagery

In comparison to earlier periods, durable imagery bearing anthropomorphic depictions exhibits a veritable explosion in quantity and form in the latter half of the Uruk period. We can speak of an innovation in terms of the display of people in relation to each other.

One of the most common media in which such imagery is present are cylinder seals. The use of seals and sealings has a long history in Western Asia, extending back several thousand years prior to the Uruk period. Earlier sealing practices were centered around the use of stamp seals, which were generally small and often button-shaped, with a flat surface into which a design was engraved in negative. By impressing the carved surface into moist clay, the design could be transferred to a sealing, which closed a container, package, or door.

Beginning in the Middle Uruk period, there was a dramatic change in sealing practices, as the long-used stamp seal gave way to cylinder seals. As the name implies, this new form of seal was cylindrical in shape, with the design carved around the circumference. The impression was produced by rolling the seal across a piece of clay rather than stamping it. As was also the case for stamp seals, most cylinder seals were made of stone of various kinds, but examples made of shell, clay, and metal over a bitumen core are also attested. The sheer quantity of seals and sealings increases markedly with the introduction of cylinder seals. The early cylinder seals display an array of sizes and shapes, from tall and narrow to short and squat,<sup>18</sup> only later becoming more standardized.

The technology of seal making and carving has been studied in some detail. Edith Porada suggested that cylinder seals may have been developed by lapidaries who made stone vessels.<sup>19</sup> Others have proposed that the preforms for cylinder seals may have been the waste product of making stone vessels. In a series of studies, the dentists Leonard Gorelick and John Gwinnett argued that nearly all of the necessary component technologies for making cylinder seals were available long before the first appearance of these seals. Cylindrical forms were derived from traditions of bead-making, engraving had been practiced on bone, shell, and ivory objects as well as on stone stamp seals, and imprinting was used on pottery, figurines, and the impressions of tokens on clay bullae or of stamp seals on sealings.<sup>20</sup> Gorelick and Gwinnett described the transition from ver-

18 Frankfort 1955, 13–14.

19 Porada 1993.

20 Gorelick and Gwinnett 1981.



tical bow-drill to horizontal bow-lathe as a primary technical innovation which allowed for mechanical engraving as well as the potential of using metal versions of tools that had previously been made of stone or wood. Their analysis nicely demonstrates how a new kind of object – the cylinder seal – could result from combining a series of existing technologies in novel ways.

A variety of other elements accompanied the introduction of cylinder seals or emerged as consequences of their production and use. Two important novel effects of their introduction were, first, the way in which the designs carved on their surfaces were conceptualized, and secondly, how these designs were transferred to sealings. The motifs on cylinder seals lack a clear beginning or end.<sup>21</sup> The carving of a cylinder seal also meant conceptualizing the work surface as continuous. The skills needed to create designs in the round were already practiced in other media, including in painting ceramic vessels, which had been common for millennia prior to the Uruk period, and carving designs on stone vessels, which (re-)appeared around the same time as cylinder seals.<sup>22</sup> For cylinder seals, however, the phenomenon of designing in the round extends beyond their production to their use as well: where to place the seal when starting to roll it is not obvious, and a seal can, in principle, be rolled as far as the extent of the sealed medium allows. Hans Nissen has proposed that the introduction of cylinder seals was a response, among other things, to the need to more effectively cover the surface of a sealing with an impression – for example, a sealed clay tablet – than was easily possible with a stamp seal.<sup>23</sup> Producing an impression with a cylinder seal also requires mastering the technique of rolling it and at the same time maintaining a constant pressure if the motif is to be transferred clearly – legibly – to the sealing.

The connection between cylinder seals and repetitive reproduction has yet another dimension to it. A striking feature of Uruk cylinder seal motifs is the diversity and type of designs carved on them. In fact, there are almost no two identical scenes, although similar structural principles were followed in composing seal designs. For the first and almost the only time in the history of Mesopotamian sealing practices, scenes of people working – whether in a ritual context or in one of daily work – form a substantial part of the repertoire. Many of these scenes also show people engaged in highly repetitive and often hierarchically organized scenes, often involving work.<sup>24</sup> In other words, not only do the properties of the seals themselves – the possibility to transfer the images on them by rolling – place an emphasis on endless repetition, but many of the motifs they transfer onto sealings are themselves characterized by repetitive actions, thereby linking form and content. The primary exceptions are those scenes in which a bearded figure

21 Moortgat 1982, 34.

22 Carved stone vessels were used in Neolithic times, for example at Körük Tepe and Hallan Çemi in east-

ern Turkey (Rosenberg 1999; Özkaya and Coşkun 2009).

23 Nissen 1977.

24 See Pollock and Bernbeck 2000, Fig. 13.2.



Fig. 2 Alabaster cylinder seal and modern impression, showing two standing figures facing each other. The figure on the right holds the reed bundle that is the symbol of the goddess Inanna, the one on the left wears the characteristic skirt of the *Mann im Netzrock*.

wearing characteristic attire and widely identified as the depiction of a leader is shown engaged in activities that can be interpreted as politico-religious in character (Figs. 2 and 3) as well as some scenes involving what I have elsewhere referred to as “genderless figures.”<sup>25</sup> In other words, once again the emphasis on repetitive action does not hold for those in the highest sociopolitical sphere.<sup>26</sup>

Fixed hierarchical relationships among people are also emphasized in the so-called Standard Professions List, a text containing approximately 100 different professions that are listed in apparent order of importance.<sup>27</sup> This list was copied over and over for several hundred years after its first attestation in the Late Uruk period, apparently serving both to train scribes and to fix – by sheer repetition – a particular understanding of social relations. Here the practical repetition of labor shown on the seals is converted into a structural repetition of similarly graded or ranked professions.

Carving on the convex surfaces of objects is also attested in Uruk times on stone vessels, which became quite common in later Uruk times, and of which the most famous

25 See, for example, Pollock and Bernbeck 2000, Fig. 13-3.

26 Pollock and Bernbeck 2000; Pittman 1994.

27 Nissen 1988, 80–81; Englund and Nissen 1993.



Fig. 3 Cylinder seal and modern impression depicting the *Mann im Netzrock* feeding animals in a ritualized scene.

and one of the most intriguing examples is the so-called Uruk Vase (Fig. 4). Carved on this one-meter-tall limestone vessel is a fascinating scene of idealized hierarchy extending from plants and animals to men of different social categories and up to the goddess Inanna.<sup>28</sup> In all but the uppermost register, motifs are repeated, from plants to animals to men bringing offerings, with differentiation primarily in the specific products carried by the men. Only in the top register, which depicts the leader, his attendants, and the goddess Inanna do we see a part of a scene in which repetition plays only a minor role.

The cylinder seals and the Uruk Vase were part and parcel of an enormous expansion in durable imagery in the Late Uruk period. More important than just the sheer quantity of images, however, are their content and form: many of them include a particular kind of novelty, in the form of images of people in relation to one another, something that was almost completely absent earlier in Mesopotamia. By virtue of being carved into vessels or seals, the relationships depicted among people and between people and animals became literally fixed in stone (or other durable materials). If that were not enough, the composition of the scenes and the way in which cylinder seals were used emphasize the incessant repetition and reproduction of those relationships as transferred to a new medium, the sealing. In this way, along with a massive increase in the diversity of images

28 Winter 2007, 125–131.



Fig. 4 The Uruk Vase, divided into registers showing, from bottom to top, stylized water, a row of plants followed by one of animals, a series of naked men bearing filled vessels, and at the top the *Mann im Netzrock* and his attendants bearing gifts to a figure who represents the goddess Inanna or her priestess. – Plaster cast; original in The Iraq Museum, Bagdad.

and in the form, size, and materials of the carriers of those images (primarily cylinder seals), the political and social messages they disseminated were carefully channeled and fixed by sheer force of repetition. And that repetition shows, in many cases, people at work who have little control over their conditions of labor.

### 3.4 The medium of cloth

I turn now to my final example, that of cloth. The massive growth in the textile industry that went hand-in-hand with the use of wool as the fiber of choice is often considered characteristic of the 3rd millennium Mesopotamian economy,<sup>29</sup> but it is an innovation that can be traced back at least to Late Uruk times. Although there is little question that the large-scale adoption of wool brought with it fundamental changes in labor as well as in the use of cloth, it should be stressed that as in the case of cylinder seal production, there are few indications of innovations in the technology of textile production that involve the invention or adoption of new tools or techniques. Rather, it is the novel combination of already existing technologies that is responsible for the innovative consequences of woolen textile production.

A variety of evidence, including the composition and age profiles of animals, imagery, and written texts, points to the late 4th millennium as the time in which the production of woolen textiles became a major element in the Mesopotamian economy.<sup>30</sup> Prior to the appearance of sheep bred specifically to produce wool, flax was the major source of fiber suitable for producing woven textiles. Joy McCorriston has argued that the transition from flax-based to woolen textiles brought with it a fundamental change in labor requirements: whereas growing flax necessitates access to prime agricultural land, raising sheep for wool can easily be done in areas of poorer soil; moreover, tending flocks requires fewer people than working fields.<sup>31</sup> The extraction of usable fibers from flax and readying them to be spun are also more labor-intensive activities than the comparable tasks for wool. An outcome of the switch in emphasis to woolen cloth is that by the late 3rd millennium, if not earlier, linen garments came to be reserved for kings and deities.

Not only do fiber sources undergo a major change sometime in the later 4th millennium, if not before, but the sheer quantity of textiles produced also seems to have grown substantially. Judging by depictions of spinning and weaving on cylinder seals, as well as mentions in early written texts, cloth production formed a major part of the political as well as the domestic economy, growing into what can quite reasonably be called an industry.

Elizabeth Barber has made the provocative proposal that in temperate regions clothing was used only to a minor extent prior to the 4th millennium BCE.<sup>32</sup> The basis for her assertion – that people are often depicted naked – is not without problems.<sup>33</sup> Indeed, the

29 Waetzoldt 1972; Zagarell 1986; R. Wright 1996; McCorriston 1997.

30 Pollock 1999, 93–110.

31 McCorriston 1997.

32 Barber 1999, 118.

33 It may have more to do with the contexts of representation than with actual everyday practice.

relatively widespread distribution of small quantities of spindle whorls and other textile-related tools in Ubaid (5th millennium BCE) times points to small-scale household-based production of cloth.<sup>34</sup> However, Barber's point remains worth contemplating, drawing attention to the fact that the production of cloth and wearing of clothing is not something that can be simply taken for granted as an everyday phenomenon for all people.

Both spinning and weaving require enormous investments of time, not to speak of the labor involved in the extraction and preparation of fibers in the first place. Judging by depictions on seals as well as mentions in texts, the wool-based textile industry of Late Uruk times employed large numbers of people and was organized in a highly structured, hierarchical fashion. The specialization of tasks heightened the repetitiveness of textile production, as seal images graphically highlight. In addition to repetitiveness, the spinning of thread and weaving of cloth share with other Uruk spheres of activity the potential for almost limitless continuity. Thread can be prepared – spun and dyed – and stored indefinitely for later use, allowing productive tasks to be cut up into small segments. This is of particular relevance in the case of quasi-industrial production, as it means that the manufacture of cloth could be disengaged from rhythms of labor that were centered around domestic tasks and seasonal patterns of resource availability.

Fibers can be spun into thread of any desired length, limited principally by the amount of fiber available. The length of a woven cloth is in turn dependent on the size of the loom and the length of the warp thread. Garment length seems to have carried special significance in Uruk times. On the Uruk Vase, the principal human figure, the so-called *Mann im Netzrock* who is usually identified as a politico-ritual leader, wears an ankle-length garment with a long tassled train. The *Netzrock*, more clearly seen on a variety of seal depictions (cf. Fig. 3), is itself a piece of clothing that is distinguished by its unusual woven structure. Although we lack the detailed descriptions of types of cloth that are known from late 3rd millennium Mesopotamian texts, the Uruk-period depictions point clearly to the social importance of garments that were elaborated in terms of length and woven patterns and thereby distinguished from the more ordinary forms of cloth. The typical garments worn by workers are less well known, although depictions in working scenes on seals indicate that they were simple, unelaborated forms.<sup>35</sup> Here, once again, is a context in which the emphasis on repetitive work – the spinning of fiber and weaving of cloth – also became the basis from which to produce elaborate forms of clothing that distinguished certain kinds of persons from others.

Another important element of textile production, but one that has received much less attention, is the incorporation of color into cloth. In cases in which archaeologists and art historians have examined the use of color in Mesopotamia, for example in the

34 Pollock 1999, 83–86; Sudo 2010.

35 For example, Boehmer 1999, 140, Abb. 120 e–h, k–l.

form of jewelry, there is good evidence that specific colors and color combinations, as well as particular properties of color such as luster, were highly valued.<sup>36</sup> Although the use and presence of colors of all sorts form an unquestioned backdrop to our contemporary lives, obtaining and maintaining color in the ancient world was often a difficult undertaking. Raw materials come in various colors, but transferring them to other objects is more of a challenge. Textiles are a case in point. Barber and others have observed that flax, which is an off-white color naturally, does not easily take permanent dyes.<sup>37</sup> Wool, however, does: in the first place, it comes naturally in a variety of colors, but more importantly it absorbs dyes relatively easily, and the acids present in the raw wool help to fix those dyes permanently. The process of weaving allows color to be applied to a finished cloth in a variety of ways. While it is possible to dye an entire piece or apply color or a design by stamping it onto a fabric, weaving different colored thread into cloth offers the possibility of controlled incorporation into the very fabric of the material being produced as well as elaboration of pattern. The use of dyed thread in order to weave a colored design results not only in greater control of the outcome but also a greater degree of repeatability of the product, as choice of color schemes can be made prior to beginning to weave. Perhaps what we see as a net-like pattern on the skirt of the *Mann im Netzrock* is an indicator of the use of multiple colors in a garment?

#### 4 Conclusion

In each of the realms considered here – the production and use of pottery, the construction of buildings, the making and use of durable imagery, and textile production – the emphasis on pervasive repetition via increasingly mechanical forms of production, often subsumed under the archaeological rubric of ‘craft specialization,’ is apparent. These repetitive actions were also accompanied by – and themselves often productive of – diversity (Tab. 1).

When Benjamin wrote about new art forms and their reception by the masses, he expressed the hope that they would lead to “a tremendous shattering of tradition”<sup>38</sup> that would further the revolutionary potentials of mechanically (re)produced artworks in the hands of the masses. As is so often the case, the Uruk example does not so clearly lead in this direction: rather, the examples explored here point to the ways in which an elite class increasingly appropriated for its own benefit the potentials of repetitive labor in order to promote a diversity of products that could be used as expressions as well as mechanisms of control and repression. In Uruk Mesopotamia mechanical reproduction

36 Barber 1999; Winter 2010, 293.

37 Barber 1999, 118.

38 Benjamin 1968 [1936], 221.

Sphere	Repetition	Diversity
Pottery	Forming techniques; use of beveled rim bowls for rations	Repertoire of vessel forms
Building construction	Uniformity of brick building blocks	Special 'public' buildings
Seals and sealing	Rolling as means to transfer design; actions within scenes depicted	Materials, sizes, elaboration of seals; content of scenes
Textiles	Production steps (spinning, weaving) at an 'industrial' scale	Elaboration of cloth: differences in weave, length, color

Tab. 1 Repetitive actions and diversity in spheres of production and use.

and repetitiveness in work routines seem to have meant drudgery, alienation, and discipline for the masses, a diversity of material forms and their elaboration for (consuming) elites, and probably some modicum of creative possibilities for the artisans who produced and/or conceptualized objects such as cylinder seals or major buildings.

The story does not, however, end there. Mesopotamian archaeology has, on the whole, shown a stunning disregard for investigating the ways in which ordinary people – those who did not belong to elite classes – positioned themselves within their changing worlds. Instead, narratives have devoted attention primarily to the spectacular and novel, the so-called works of art, and with that an implied – if not explicit – orientation to the perspective of the elite consumers who benefited from this new regime. The lot of the masses, whose possibilities for self-expression and realization were for the most part radically curtailed, is thereby minimized,<sup>39</sup> along with the central role of new forms of labor and laborers whose work contributed in no small measure to creating many of the material elements – and with them the immaterial ones – of the emerging 'civilization'. To an even lesser extent has the possibility been considered that the artisans and laborers made creative and potentially subversive use of the outcome of their age of mechanical reproduction.

39 But see Bernbeck 2009.



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Museum Berlin, SMB. Photographer: Olaf M. Teßmer. Reproduced with permission.

4 Vorderasiatisches Museum Berlin, SMB. Photographer: Olaf M. Teßmer. Reproduced with permission. **TABLES:** 1 Susan Pollock.

## SUSAN POLLOCK

Susan Pollock (PhD, University of Michigan) is professor at the Institute for Western Asian Archaeology, Freie Universität Berlin. Her research draws on feminist and political economic approaches, focusing in recent years especially on subjectivation and commensality. She is also actively involved in the archaeology of the 20th century. She has conducted fieldwork in Iraq, Iran, Turkey, and Turkmenistan as well as at the former Tempelhof airport and other 20th-century sites in and around Berlin.

Prof. Dr. Susan Pollock  
Institut für Vorderasiatische Archäologie  
Freie Universität Berlin  
Fabeckstrasse 23–25  
14195 Berlin, Germany  
E-Mail: [spollock@zedat.fu-berlin.de](mailto:spollock@zedat.fu-berlin.de)